REMARKS/ARGUMENTS

Claims 1-17 are active.

The claims have been amended to include the term "isolated" where applicable thereby overcoming the rejection applied under 35 USC 101.

Claims 14-17 find support, e.g., in [0057] of the specification as originally filed.

Claim 9 is amended to recite positive method steps thereby overcoming the rejections applied to Claim 9 under 35 USC 112, second paragraph and 35 USC 101.

Claim 13 is amended to specify lipoxygenase 1 followed by its abbreviation LOX-1 as noted in the claim objection at page 3 of the Action.

The sequence objection (page 2 of the Official Action) is addressed by inserting specific sequence identifiers into the description of FIG. 5 (nucleotides 31-90 of SEQ ID NO:1 for "VINTAGE" and nucleotides 31-90 of SEQ ID NO:2 for "SBOU2").

A certified English translation of the Japanese application to which the present application claims benefit is attached (see page 2 of the Official Action).

No new matter is added.

The rejection of Claim 1-9 under 35 USC 112, first paragraph pertaining to written description (Action starting at page 11) should not be sustained. The barley (*Hordeum vulgare*) LOX-1 gene is known in the art (see paragraph [008] of the specification) The fact that LOX-1 with a known structure was within the knowledge of those skilled in the art, the specification and claims satisfy the written description requirement (see *Capon v. Eshhar* (Fed. Cir. 2005): "When the prior art includes the nucleotide information, precedent does not set a *per se* rule that the information must be determined afresh."; see also *Falkner v. Inglis,* 79 USPQ2d 1001 (Fed. Cir. 2006): "Recitation of Known Structure Is Not Required" to satisfy written description requirement). Reconsideration and withdrawal of the rejection is requested.

The rejection of Claims 1 and 2-9 under 35 USC 112, first paragraph (enablement) should not be sustained either. As explained above in the context of the written description rejection, the structure of the barley LOX-1 gene is known

Further, at page 6, line 11 from the bottom to page 7, line 14 and page 11, line 4 from the bottom to page 13, line 5 etc. of the Official Action, the examiner misinterpreted that LOX-I mutant gene of the present Invention encodes a polypeptide having diminished LOX-1 activity and that any variant or mutant barley LOX-1 gene of undefined structure encoding a polypeptide with undefined LOX-I activity (enhanced or diminished) does not satisfy requirements of enablement.

However, the present invention relates to LOX-1 mutant genes encoding a polypeptide with loss of LOX-1 activity. This is demonstrated in paragraphs 0040, 0115, 0120 and Fig. 5 etc. that, in the LOX-1 mutant gene of the present invention, the 60th base G of the known barley LOX-I gene (SEQ ID NO: 1) is replaced by A (SEQ ID NO: 2). As bases 60-61 of SEQ ID NO: I constitute the splicing donor site (5-GT-3), this base substitution produces an aberration in LOX-1 splicing which results in a loss of LOX-1 activity. Thus, a person skilled in the art would recognized that, even though in any variant or mutant barley LOX-1 gene other than LOX-1 mutant (SEQ ID NO.10) and the corresponding genomic region (SEQ ID NO.11), such a mutation would result in loss of LOX-1 activity based on the description of the present specification and common general technical knowledge.

Accordingly, reconsideration and withdrawal of the rejection is requested.

To the provisional rejection citing co-pending 12/505,723. A in accord with MPEP § 822.01, if the "provisional" double patenting rejection in present application is the only rejection remaining, the examiner should then withdraw that rejection and permit the present application to issue as a patent, thereby converting the "provisional" double patenting

rejection in the other application into a double patenting rejection at the time the present application issues as a patent, if even applicable.

Respectfully submitted,

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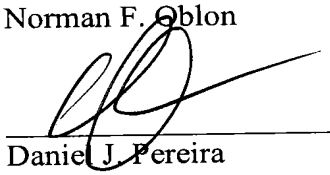

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